DM3173

October 17, 1996

Report Of Invention

1. a. Title of Invention: DD3: A Novel Prostate-Specific Gene, overexpressed in prostate adenocarcinomas
   b. Grant No. CA 58236 from the National Cancer Institute, NIH

2. Inventors:

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4. Contribution of Facility: This consists of providing the biologic samples necessary for analysis and supplies for molecular biology studies.

5. Drs. Isaacs and Bussemakers were supported by an NIH grant to D.S. Coffey, P.I. (SPORE CA 58236). Dr. Bussemakers was a postdoctoral fellow in Dr. Isaacs' laboratory from 2/93 to 7/94. Dr. Isaacs is still supported by this grant, whereas Dr. Bussemakers has returned to Nijmegen where she continues to work on this project.

6. Description of Invention: Using differential display technology, a cDNA termed DD3, was identified which is differentially expressed in normal and cancerous human prostatic tissue. Cloning of the DD3 cDNA, followed by Northern and RT-PCR analysis, determined the sites of expression to be restricted to the prostate (i.e. absent in artery,

breast, bladder, colon, duodenum, heart, kidney, liver, lung, pancreas, seminal vesicles, skin, spleen or testis) and its expression in cancerous prostatic tissue is at least 20-fold higher than in normal prostatic tissue. These analyses indicate that DD3 is the most prostate-cancer-specific transcript described to date. As such, DD3 is a promising new marker for prostate cancer with important potential diagnostic value, as well as being a potential target for gene- and/or adoptive immunotherapy.

7. Publications:

No manuscripts describing the sequence of DD3 have been submitted nor published. The expression pattern of this gene has been presented in preliminary communications (abstracts) and presented at several meetings.

Abstracts:

Bussemakers MJG, Isaacs WB. Identification of genes associated with prostate cancer development. Urol. Res. 21 (1993) 452.

Bussemakers, MJG, Van Bokhoven A, Effting M, Janssen MJW, Ru N, Isaacs WB. Identification of DD3, a new gene overexpressed in prostatic tumors. Urol Res 23 (1995) 253.

Bussemakers, MJG, Van Bokhoven A, Ru N, Isaacs WB. DD3, a new prostate specific marker, overexpressed in prostate carcinomas. In preparation.

William Isaacs 10/21/96

Marion J.G. Bussemakers, Ph.D. date